

ABSTRACT OF THE DISCLOSURE

A continuous optical calibration system for a galvanometer scanner. The system maintains one or more fiducial position references in each axis, independent of the normal position detector circuit. An optical reference position monitor circuit triggers a calibration signal when load position coincides with a reference position, whereupon the measured position of the position detector and then current look up table is compared to the known reference position, and an error correction is generated and applied to the look up table. The optical monitor circuit includes a rotor rigidly attached to the load shaft so as to rotate between a light emitter and detector. A thin slit in the rotor permits passage of a highly collimated light beam to the detector only when the slit is aligned between the emitter and detector, which occurs only when the load is at or passing through the reference position.